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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,527	03/25/2004	Pao-Pao Liu	MR2665-57	5940

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ELLICOTT CITY, MD 21043

EXAMINER

COOLMAN, VAUGHN

ART UNIT PAPER NUMBER

3618

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/808,527	LIU ET AL.	
	Examiner	Art Unit	
	Vaughn T. Coolman	3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 162.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "41" has been used to designate both the seat post in FIGS 1-3 and the steering tube in FIG 5. Examiner respectfully suggests removing reference character 41 from FIG 5 because the seat post is obscured from view by the lower portion of the steering tube.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Udden et al (U.S. Patent No. 3,952,822).

[**claim 1**] Udden discloses an electric motorized scooter (shown in FIGS 1-4) comprising: a base (2) and a steering tube (5) rotatably connected to a front end (4) of the base (2), a front wheel (3) connected to a lower end of the steering tube (5) and a handle (grip covering on item 6) connected (via items 6, 7, and other unlabeled items in FIG 4) to a top end of the steering tube (5); two side wheels (1) connected to two sides of the base (2) and two motors (20) respectively connected to the two side wheels (1); an electric differential including a motor controlling unit (Column 5, lines 3-28) which is electrically connected to the two motors (1) so as to respectively control the two motors (1), and a steering control device (6, 7, 22, 23, 24, 25) including an operation device (speed potentiometer) and a steering unit (micro-switches – line 8) which is electrically connected to the motor controlling unit.

[**claim 2**] Udden further discloses a rear wheel (9) being connected to an underside of the base (2).

[**claim 3**] Udden shows his scooter further comprising a seat post (12) on the base (2) and a seat (18) connected to the seat post (12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beer (U.S. Patent No. 4,874,055) in view of Nagamachi (U.S. Patent No. 5,657,828) and further in view of Lin (U.S. Patent No. 6,286,843 B1).

[**claim 4**] Beer discloses an electric motorized scooter (item 10, shown in FIGS 1-6) comprising: a base (11) and a steering tube (41) rotatably connected to a front end (12) of the base (11), a front wheel (15) connected to a lower end of the steering tube (5) and a handle (32) connected (shown in FIGS 4 and 6) to a top end of the steering tube (41); two side wheels (16) connected to two sides of the base (11), and a steering control device (30) including an operation device (35) and a steering unit (31, 37, 38, and 39) which is electrically connected to a motor controlling unit (“electric motor throttle”; Column 3, lines 36-40). Examiner is reading “electrically connected” broadly as connected to an electrical device. Beer discloses a conventional hand throttle (35) including a control cable connection actuating the electric motor

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throttle. Examiner respectfully suggests that the above described configuration meets the claim limitation of “electrically connected”.

However, Beer fails to teach two motors respectively connected to the two side wheels or an electric differential including the motor controlling unit. Nagamachi, however, teaches a vehicle (FIGS 8-10, item 100) including two motors (112 and 113) respectively connected to two side wheels (104 and 105) and an electric differential (shown in FIG 9) including a motor controlling unit (118) which is electrically connected to the two motors (104, 105) so as to respectively control the two motors. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scooter shown by Beer with the two electric motors and controlling unit as taught by Nagamachi, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. As such, using two commercially available small motors rather than one large motor would be obvious to one of ordinary skill in order to decrease overall assembly costs. The controlling unit would be obvious in order to control the speeds of each motor, independently or synchronously.

Nagamachi also teaches a connection mechanism (FIG 6) including four springs, two for steering control and two for speed control, connected to his handle (Column 8, lines 18-25). The combination with Beer would disclose the connection mechanism of Nagamachi between the handle and the top of a steering tube of the scooter. However, neither Beer nor Nagamachi disclose the remaining structure of the connection mechanism recited in claim 4. Lin teaches (FIGS 1-10) a connection mechanism (FIG 2) between a handle (31) and a top of a steering tube including a first U-shaped frame (42) and a first neck (41) pivotally connected (422) between two extensions (420) of the first U-shaped frame (42), two first springs (43) connected between

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the first neck (41) and an inner bottom (423) of the first U-shaped frame so that the first neck swings between the two extensions of the first U-shaped frame (shown in FIG 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scooter shown by Beer as modified by Nagamachi, with the connection mechanism configuration as taught by Lin, since such a modification would provide shock absorption of minute movements experienced by the body of the user while traversing uneven surfaces such that throttle control is not affected by said movement.

[claim 5] It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the connection mechanism shown by Beer as modified by Nagamachi and Lin, with a second identical u-shaped frame and neck as taught by Lin perpendicular to the first assembly, since such a modification would provide a disconnect between the two first [steering] and the two second [acceleration] springs taught by Nagamachi. The steering and acceleration control circuit would work exactly the same, but one could install springs of varying stiffness for steering and acceleration to render the control circuit less sensitive to one or the other. Furthermore, one could install springs of varying stiffness for the acceleration and braking directions of the handle, allowing for greater safety. In doing so, the combination would disclose the limitations of claim 5.

[claim 6] Nagamachi further teaches the motor controlling unit (118) includes two motor controllers (130 and 133) which are respectively connected to the two motors (112 and 113), the two motor controller (130, 133) respectively connected to a main control unit (129).

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuo (U.S. Patent No. 6,386,562 B1) teaches the wheel arrangement to the instant application.

Stegeman et al (U.S. Patent No. 5,150,762), Lin (U.S. Patent No. 5,904,214), Brandenfels (U.S. Patent No. 4,750,578), Garin III (U.S. Patent No. 5,435,404), Cragg (U.S. Patent No. 3,955,639), Mossay (U.S. Patent No. 1,733,356), and Chiang (U.S. Patent No. 6,443,543 B1) teach elements of the claimed invention.

Stafford (U.S. Patent Application Publication No. US 2001/0038184 A1) teaches a seat and seat post similar to that disclosed in the instant application.

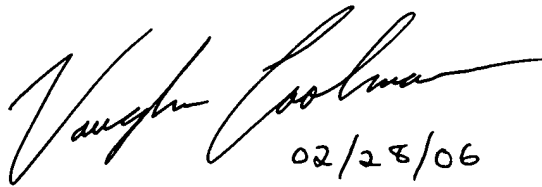
Chalmers (U.S. Patent No. 1,798,724), Bigley et al (U.S. Patent No. 3,199,700), Habiger (U.S. Patent No. 4,036,321), and Eckstein et al (U.S. Patent No. 6,039,142) teach control devices including elements of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vaughn T. Coolman whose telephone number is (571) 272-6014. The examiner can normally be reached on Monday thru Friday, 8am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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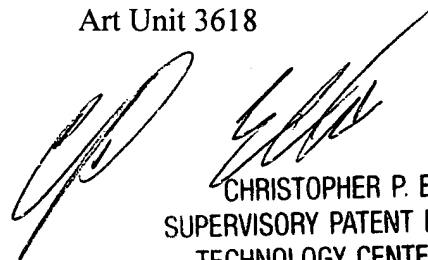
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



02/28/06

vtc

Travis Coolman
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